

p7. Come to court Green Court knew
this is court.

p8. Advertisement as to how I come to.

p5. Green house started with the 11th March
in 1954-60 not have anything
system.

p6. Green is interested in the house - some
ingots Green & present day.

p7. Green house was a 11th
house.

p1. Green is interested in the house - some
ingots Green & present day.

p2. Green is interested in the house - some
ingots Green & present day.

p10. Green is interested in the house - some
ingots Green & present day.

p12. Green is interested in the house - some
ingots Green & present day.

p3. Green is interested in the house - some
ingots Green & present day.

p11. Green is interested in the house - some
ingots Green & present day.

p 39

Difficult point that under the
Hartford insurance - and p. 39.
(First says to come),

p 41

Breen explains that
some could have access all the
time.
some has ~~access~~ access to the
and some do.

p 42

to the point of saying
to the point of saying
to the point of saying

p 47

Why did ^{system} ~~to~~ have electronic copy
made by a New York City ~~for~~ ^{for} her

...and is based on the 1875 to 1880s mint on the basis of certain knowledge of 19th century minting technology that Rowman's conclusions are not very careful, unsubstantiated, misleading and in some instances erroneous as well, based on his understanding or misrepresentation of 19th century minting technology known to have been used for minting also for 1880s issues. Detailed analysis of the minting is outlined later in this report, based on detailed study of this evidence regarding the photographic micrographs were a handful of others, and not deriving from subsequent research. Even Rowman's examination includes Colonial coinages and Colonial paper money; while from the work on the 1880s dollar, there is no evidence that he has specialized extensively in the history of 19th century minting technology (he would most likely have been of great relevance to the conclusions reached in that case, correctly). Expert knowledge in this specialty (19th century minting technology) can be found in the sources: (a) by forensic minting minting minting, (b) minting minting minting minting, (c) minting minting minting minting, (d) minting minting minting minting, (e) minting minting minting minting, (f) minting minting minting minting, (g) minting minting minting minting, (h) minting minting minting minting, (i) minting minting minting minting, (j) minting minting minting minting, (k) minting minting minting minting, (l) minting minting minting minting, (m) minting minting minting minting, (n) minting minting minting minting, (o) minting minting minting minting, (p) minting minting minting minting, (q) minting minting minting minting, (r) minting minting minting minting, (s) minting minting minting minting, (t) minting minting minting minting, (u) minting minting minting minting, (v) minting minting minting minting, (w) minting minting minting minting, (x) minting minting minting minting, (y) minting minting minting minting, (z) minting minting minting minting. A later section of the report beyond re-examination the available data and arrives at conclusions based on expert knowledge of 19th century minting technology, especially in contrast with those arrived at by Rowman.

As it leads to the genuineness or falsity of the aforementioned gold \$20 by minting. Rowman and Associates, represented in addition by counsel and by Eric Rowman as technical consultant, was in reality minting at the 1980 AIA Convention panel hearing minting as represented by Eric Rowman as minting prosecuting attorney, minting, - in redress in the amount of the cost of the work, and attempt to discount all concerned with it, minting.

...the extremely elaborate means Newman describes--
and then failed to make them look like proofs? Whoever made these
punches knew enough to furnish blanks and dies, as his microscopic
examination reveals. Newman can't have it both ways.

16. ~~On page 6~~ is an error of fact which destroys the validity
of all conclusions thereafter reached by Newman. He describes the
disc-shaped lump under r. arm of T in UNITED as a feature of one
and only one working die, all other dies showing it therefore being
falsely ~~and~~ dated copy dies. In fact, Newman's whole presentation
from there on is based on his belief that only one working reverse
die was used to make several million USAOG twenties, and that the said
only at T and the various stages of reverse cracks represent pro-
gressive failure of that one working die, anomalies in the * coins
thus being supposedly evidence of the use of ~~copy~~ copy dies. I
shall show that Newman's entire argument against the * coins hinges
on that one assumption and that the assumption itself is false.
For now, consider the following: (a) Trialpieces exist of three
different ~~pieces~~, showing center dot and guide lines. These have
letters identically placed (even including double punching on 55)
to those on the reverses of all regular and * USAOG twenties. The
production of matrices would have been a meaningless procedure
unless with the intent of ~~raising~~ raising from them several working hubs
from which hundreds of working dies might be sunk. (b) The known
trials of matrices are not * items. (c) T_{no} reverse of BPN 10
(not a * ~~trial~~) cannot be from the working die used for any of the
regular USAOG ~~trials~~ so far examined. It shares the peculiarities of
* and non- twenties alike save for ~~the~~ reverse breaks, but it shows
incomplete letters due to drastic lapping of the die, and in other
aspects manifests itself as an impression of a working die probably
different from any of the dozen or so reverses found on ~~the~~ USAOG
pieces unquestioned as to genuineness. Proof that there were

different working dies for each of which twenty is found in the subject's workings. In some cases of groups II (non-*, BROOKS) and IV (non-*, BROOKS), no rev. breaks) have a die break from frame to frame evident, i. e. of I. Group of groups VII, VIII, IX (non-*, BROOKS) have a break in verticals at 3:30 on reverse, but no trace of the break of the II and IV dies above mentioned; and they also show the differential states of the so-called "circumferential" peaks at least one right. This is a mutually exclusive circumstance; the same working die, cracked on coins of groups II and non IV, could not have suddenly been overcracked, then cracked in a different place for groups II (III through X). Leaving aside any other considerations, these three establish the use of different working dies. And, in the case of these peculiarities occur on all these, the use of hubbed dies is evident. In a differentiating, reverses, therefore, we have to look for peculiarities of individual dies (imparted by different amounts of base retouching, lagging, rusting or chipping) as distinct from peculiarities originating in the hub. What is found only then is presumably from an individual working die; what is common to many, demonstrably different dies is from the hub. It remains to be seen whether the "circumferential" peaks are in the working dies. Gorman believes that they are. I am prepared to show that they are not, and to differentiate among various working dies all having the breaks at right. The subjoined catalogue provides differentiation of some 15 or more working dies (non-*).

Working dies: West of these (including all non-*) group I, only 1 or 2 dies, though the matrices do not; a minority of them show some traces of the "circumferential" peaks at right and left. In West interpretation of the data involves a minimum of four, most likely five, working hubs made from a single matrix which began to crack up in the press where it was being used to raise the

11. Of this more in the subjoined catalogue.

17. Still on page 6, Newman alludes to the diagonal die scratch on Field just E. of L final A in AMERICA, as something distinctive to the pieces. If it is L in fact a scratch on the working die, it means only that the * coins shared one and the same working die; it is not evidence as to genuineness or falsity, and it will not be found on impressions of other working dies. However, Ford's enlarged photograph of the Kosoff ex proof (BPN 12, USAOG 107) shows what looks like the L identical die scratch. The obverse of that coin is drastically injured, like the reverse, and unlike other obverses * or non*. If this mark at final A proves to be identical, then the scratch must have occurred/not on either working die but on the matrix at a very late stage; its occurrence on regular Group X twenties and others would have been likely obscured by cold flow and/or mint abrasions and bag marks. Even if it does not prove to be identical on the * obverse(s) and that of the proof, this point would not affect the line of reasoning I am adopting here.

18. On page 7 Eric makes much about a dent on I of UNITED STATES coins, saying that "this dent is not found on other coins," and using it and a similar dent ~~xxxx~~ on frame below F on reverse as evidence that a picked coin was used as a prototype for falsely modeled or transferred or cast reverses. This is a fundamental error, invalidating all his subsequent conclusions. A hub is in relief like a coin. A depressed dent could have been inflicted on a hub, in which case the working dies sunk from the hub would show it in relief, and the coins struck from those working dies in turn would show it as depressed. Variation in the depth of the dent would reflect either a variable force used in sinking the working dies or in striking the coins, or in some cases retooling of the working dies to minimize such injuries. Instances of such dents to hubs are known on various United States coins. All half cents 1840-57 are

... evidence 1-1 (USAG 107), photo from Smithsonian negatives showing both the dent on I and the dent at frame under F; it was not seen from any HAS coin obtained many years before 1960--supplied about twenty. It has plenty of nicks and dents of its own, which were not found elsewhere, especially not on the HAS coins, therefore it was not the prototype of the latter, even were one to assume for the moment that any HAS coins had been so made; for the Smithsonian Institution does not allow its coins to be sent out to machine shops. I also in evidence X-2, USAG 126, a twenty of group J picked out at random from Stack's stock, which shows the frame dent below F but the dent on I has been effaced. X-3, USAG 150, shows the same frame dent but no dent at I; and there are die cracks on reverse, e.g. from 5 to frame, not found elsewhere. The two Kagir coins, X-5 and X-6, EPN 17 and 18, show weaker traces of frame dent--a fact remaining unnoticed by Newman. The dent on I of UNITED occurs not only on the obverse of all * twenties of regular design (groups V, VII, VIII, IX) but also on the two 50 D. obverses (regular and with about zero) of the same design, and on the other twenty-size obverse without denomination below eagle; impressions TGI13, 114 and TGI/P 110. From these dies came in gold and in lead. The appearance of one and the same frame dent on a coin picked at random from a dealer's stock, on a piece long in the Smithsonian, and on four demonstrably different * obverses, is excellent evidence that the same hub was used for all the working dies; one need not further credit Newman's "copy dies" argument, or at the very least one must discard his argument based on the shared dents as constituting supposed evidence for copy dies.

19. The remainder of Newman's page 7 argument is pure chaos. Newman argues from what I call the "circumferential" breaks

adequate solution is to recognize that a number of different working patterns had to be made, that several different hubs were used and that these hubs were all from the one matrix which was in the process of cracking up as the hubs were being raised from it. Only this explanation accounts for unique letter peculiarities distinguishing different working dies of group X II (all showing all circumferential breaks); but this same assumption accounts for the alleged anomalies of the HAS coins into the bargain, without the slightest difficulty. The circumferential cracks represent the four stages of cracks being suffered by the matrix as four working hubs were raised from it; and the letter peculiarities aforementioned represent minor handwork of the like on individual working dies.

20. Other specifics of Newman's theory can likewise be accounted for on this basis without straining for ad hoc assumptions. The spot at first A of ASSAY is not part of the "circumferential" cracks that occurs independently of them. The bump at first A of ASSAY is not part of the "circumferential" breaks but appears on one working die as a chip; it differs in direction from the crack from A to frame line found on some Group X coins. Presence of the said frame dent and dent on I of UNITED on both HAS and non HAS coins points to a common origin in the hubs. This in fact can be used to establish a line of argument in favor of genuineness; whoever made the dies for HAS going had access to original equipment and did not need any workarounds procedure as casting dies.

21. Furthermore, if the "circumferential" cracks were in one working die and represented progressive deterioration thereto, they would increase continuously. Coins showing progressive breakage of one and the same working die can normally be arranged to show numerous intermediate states of the breakage. This is not possible here; the circumferential breaks occur in four states only, and other cracks

or 1817 use four different collars in three different diameters: 31, 30 (1) and 31 mm. Half eagles of 1840, all mints, come with two different collars representing two different sizes; 187600 25¢ pieces come with edge counts of 119 (standard) and 153; Philadelphia double eagles come with edge counts ranging from about 154 to 170. It is therefore unsafe to conclude either genuineness or falsity based on edge counts alone. Making a grooved collar is easy using either a lathe, a special file, or a casting process. The presence of non-170 collars on * coins means that their maker had access to several different collars in different sizes. For data see the subjoined catalogue; I judge that at least four different collars were in use, accommodating different diameters.

J. Newman's extended argument based on the spiral lines found on EPR-6 or VII-2 (pages 8-9) represents to me a tempest in a thimble. Newman claims that a lathe on which such a spiral could be turned did not exist in 1853. There is a fundamental error of fact here, as any collector of large cents could point out. A still tighter spiral is found on many obverse dies of undraped bust cents of 1808, 1813 and other nearby dates; this must have been made with some kind of cross-cut lathe for the purpose of turning the die blank into a regular blunt-nosed cone preparatory to setting it into the hubbing press. I have also seen the plette from Professor Woodbury of Mass. Institute of Technology, the M Specialist in history of technology, which sufficiently convinces me that Newman has erred here.

24. Spirals on a die blank are readily accounted for either from the mentioned cause or from the use of the Contamin portrait lathe, in the mint from 1836 on. The pattern cents of 1854 (usually misread as "1851"), Judd 156-159, Adams-Woodin 145-148, derive their obverse from an 1854 silver dollar die by use of the reducing

being the aforementioned portrait letter, without the necessary mechanical know-how, to remove the said spirals; this is documented in item 1. Spirals on a planchet tend to suggest some kind of experimental procedure set on a cast blank designed to reduce its weight to some extent, or else to make one face a true uniform plane, the blank therefore a poor cylinder. Gold, like mercury, tends to have a positive meniscus, so that a least blank (especially in an open form mold) will be convex. In the event that experimentation was going on intended to save wear and tear on machinery, casting blanks right well have been tried out as an alternative to the costly, time-consuming and time-consuming procedure of rolling ingots into strip and punching blanks from the strip. The difficulty here is always going to be standardizing weight, of course. I am not saying that this was the intent of the maker: only that this is a possibility overlooked by Newman. In any event, the spirals are no argument for or against genuineness or falsity. Were they on an obverse die, they could have been worn off or polished off; Ford believes they were, but this would entail either regrinding, bulging or lapping the obverse die after EPR-6 had been made, and I find no distinct evidence that EPR-6 is from an appreciably earlier die stated than obverse striking its reverse. Were they on a planchet, they could have been made whenever and wherever the planchet itself was made.

25. Weight brings me to the question of cast blanks. Newman, page 9, says that x-ray diffraction studies were ordered for coins EPR-2, 3, 4, *6, *6 and *7, and that the films have been interpreted to show that numbers *6 and *7 (both Group V coins in the subject catalogue) are on cast blanks, number *6 (a Group VII, with a half-cent reverse die) on the usual sort of rolled, drawn, cut and machined blank. It is not at all clear to me how x-ray films so made could be so interpretable, especially in the absence of a comparison piece made on a cast blank. Even were one to grant the

1. I have been looking U.S.ASSAY instead of U.S.ASSAYER, found only on a gold piece, and showing the same letter punches. The alphabet from which these dies were made, i.e. a set of obviously 19th century letter punches, is of the most crucial importance and will be dealt with when we consider the Argenti & Co. ingot and the rusted die exhibited at Ford's bourse table at the 1958 ANA Convention. At the time, the set of six trial pieces is not at all "strange" (i.e. suspicious, in Newman's vocabulary) granted that four different obverse and two or possibly three different reverses are involved; in no instance can it be demonstrated that any of these dies ~~had~~ were used on lead trialpieces in failing condition after having been used on production runs--which is what Newman had been arguing.

30. The ~~XXXX~~ MOFFAT & CO reverse die (die Y) is cited by Newman as a fantasy production. I find it curious in the extreme that if it is a fantasy, it is in obviously 19th century lettering of Antiquarial style ~~unlike~~ (though different size) to that used on the MOFFAT & CO ingot die trial in lead found in the estate of Stephen H. Nagy and mentioned in the Lester Merkin inventory of the Nagy material; this die trial is unquestionably genuine and was probably made in Philadelphia. It was never owned by Franklin and now is the possession of Ford; it has never been doubted nor involved in any controversy. Were there no controversy, one would automatically conclude that die Y had been made by the same engraver who made the mentioned trialpiece. This trialpiece is ~~not in the~~ *Inventory* catalogue; for convenience it is described here: Obv. Around, AUGUSTUS HUBBARD ASSAYER On scroll within, THOUS following space MOFFAT & CO (no period) / for incuse fineness. Below, /D C with spaces left for incusing value. ~~REVERSE~~ Lead, 250 size, usable for ingots of higher values; /round, uniface. Note also that there is ~~no~~ no period after CO on either the ingot die trial or on reverse Y. If reverse Y is

and they were not the slightest done from the nineteenth century. These pieces are very difficult to come by, and prohibitively expensive to produce. Stephen H. Hagg's own small group of pioneers had forgotten heavily to that; he was never able to get better pieces of the good style as they were no longer being made--only very few afterwards. They would be still more difficult to find still more years after Hagg's monkey business.

3). The above argument again increases the amount of equipment that must have been available to the maker of the pieces. The original Hagg had exhibited over two dozen dies and punches, the number of the interesting parts of four different alphabets, all of which were engraved by at least two different engravers. The pieces were of the century style, what is still more significant, there is plain evidence on the dies made from one of those alphabets that various punches chipped and were replaced by others of the same general style. This suggests a much larger operation than a mere brief exercise in counterfeiting. XXXXX XXXXXXX The latter could have been accomplished very simply at small cost without the considerable difficulty of locating the necessary equipment. Yet the coins and ingots show that far more equipment was used than could have been needed. The cost of such an operation even in the mid 19th century exceeds the prices actually realized by the Hagg pieces and leading pieces. Questions of motivation are necessarily involved here. If this was merely a practical joke, it is one of the most expensive ones in the history of numismatics, and one of the least productive. Many of the pieces were sold by Franklin XXXXXXX at prices less than the cost of manufacture had they been made properly. If the maker was a wealthy madman, he exhibited an extraordinary combination imaginable of extreme sagacity with short-term study (anticipating discoveries only later made by me), occasionally with extreme stupidity and capriciousness, for financial

possessed only a small fraction of what could have been accomplished with proper use of the identical equipment. For instance, the maker could have left the Argienti & Co. ingot unutilized; he could have easily made up a Schultz & Co. ingot at far greater ease of sale; he could have used ^{and dies} ~~what~~ his puncheons to create a greater number of rectangular currency ingots in different denominations.

33. At this point it is necessary to bring in the prime exhibit, namely the catalogue of * coins and ingots and related material. After which I shall demonstrate how, to my own surprise, the lost trialpieces, the Argienti & Co. ingot, and the rusted die aforementioned, build up a case of positive evidence establishing, to the best of my knowledge and belief, that the maker of all this material had access not only to original equipment owned by the USAOG, but also to sets of letter punches owned by Albert Küner and known to have been destroyed by fire (with Küner's entire equipment) prior to ~~1911~~ 1911. This will suffice to establish the genuineness of the controversial * coins.

II PART TWO. EXHIBIT OF HUMBERT ASSOCIATE SOURCE MATERIALS.

33. For convenience I must exhibit this catalogue in tabular form, preceded by a list of the dies and puncheons used to make the coins, ~~the~~ currency ingots, trial pieces, experimental pieces, assay bars, proofing pieces, &c., there represented. If readers wish to save time, they may skip to Part Three, which follows the catalogue, and read the conclusions there drawn.

34. ^{3. 0. 1. 2. 3. 4. 5.} The following is a list of the dies and puncheons used. Obverses are numbered. Reverses are lettered in capitals. Puncheons and logotypes are lettered in lower case.

35. For convenience in this same section there will be shown a group of obverses and reverses used on regular USAOG twenties.

The center hole, which he punched in the 2 to make a surplus
impression. Impressions exist in silver and copper and lead
and possibly other metals; round and square. Several of these were
in the Nagy estate, according to existing inventories. *cf. Nagy 97*

37. The obverse and reverse of the Group One coins,
viz. the 1852/1 Humbert 884 THOUS twenties, are not from the hubs
used to make the dies for groups II through X, therefore they are
not included in the enumeration of dies to follow. Note that the
legend is differently shaped, and colons follow THOUS: And the
legend DOLS. Lettering style indicates a Philadelphia Mint origin
for these as well as for the 1853 twenty dies, or at least for the
matrices and hubs. Lettering style of reverse indicates a common
the similar ten dollar reverses,
origin for this reverse, and the the tablet dated 1851, silver
impressions from which were in the Nagy estate and in the Nagy
consignment included in the 1958 ANA Convention auction catalogue.

38. The following hubs are identifiable for twenties ~~xx~~ bearing
date 1853.

I. Obv. Eagle, 884 over 880: group II.

II. Obv. Eagle, narrow 900, no overpunching showing, the 900
punches as on the 310: single ~~xx~~ die of group III.

III. Obv. Eagle, wide 900 over 880: dies of groups IV through X.

Rev. A. 1853 tablet. Without TE chip or breaks: group V. *Rev. A. 1853 tablet. Without TE chip or breaks: group V. ~~Rev. A. 1853 tablet. Without TE chip or breaks: group V.~~*

Rev. B. 1853 tablet. With TE chip. Without "circumferential"
break of C or D. Groups II, III, IV. *Many working dies, all from Nagy*

Rev. C. With TE chip. With lump between S and L. With minute
trace of die failure in area which will later show "circumferential"
break. This may exist on regular non-* twenties ^(C. Nagy 97, D. 1) but so far all
specimens shown have proved to be lightly struck Group X's. It is

that five distinguishable tablets cut down from
dies of regular type. As one of the tablets (listed later as A)

1000 1000 70 200 5000
1000 1000 70 200 5000

but as he mentions no frame dent it is
probably from the same dies. Quality
of photo supplied by JHU not good enough
for certainty.

100 100 102 Smithsonian, ex Mint 1625 (1512-14 det. by
Comparative). WITH CONTROVERSIAL FRAME
DENT BELOW R. With die crack from frame
r. of Y in slanting up to border; this
crack visible to naked eye. Call this
cracked die B1.

100 100 102 Same dies, more worn; the frame dent
now weaker, showing only as a small
faint depression in the same area, the
crack plain.

100 100 102 Identical dies, same state.
Rev. hub II.

GROUP III. Narrow 900 on scroll, the 900 from the punches used for
top 110. I in UNITED lacks top serifs, N and E, is in UNITED STATES
lack top left serif, B in TWENTY lacks bottom left serif, B in
UNITED normal. Only one working die identified: weak crossbars to A's
Rev. B1. Similar, from the same hub as group II coins, but without the
die crack of B1, and without or with a different crack from frame
to period after 3. This group is very rare.

III-1 110 162 Uncracked rev. die.
III-2 116 162 Rev. cracked as described.
III-3 162 "LAY-3." Coll. Leo A. Young. Uncracked
dies.
III-4 120 162 Ditto, different provenance
III-5,6 150-1 162? Ditto
III-7 162 Hartford, Conn. State D. ex J.C.
Mitchelson. Earliest die state recorded--
heavy striae left of m frame.

All details of the obverse are identical in placement on hubs I,
II and III save only for the 900, the conclusion is that the matrix
contained 860 THOUS. and that on one hub raised from it the numerals
were altogether effaced (got off after softening) after which
another master die or matrix was sunk from it and the 900 hand punched
in at Philadelphia. This was probably done after the rather unsightly
860/860 and 900/860 hubs had been created. The presumption is that
hubs were sent to USAOC in San Francisco, either overland or via Cape
Horn. Shipping working dies would have meant repeated costly and
risky shipments with the perpetual danger of dies getting into private
hands. Shipping hubs was much less risky or master dies, perhaps otherwise
would have entailed less repeated risk. The narrow 900 may have been
represented by a hub raised from the altered matrix, or by a matrix
itself created in the manner just mentioned.

GROUP IV. Only hub III. Wide 900 over 860 on scroll. I in UNITED
top serifs, N in UNITED lacks top left serif, B's in UNITED
lacks frame, B in TWENTY has bottom left serif always weak, some-
times partly repaired, sometimes altogether missing (various working
dies), B in UNITED lacks top left serif. Many working dies. Usually
normal crossbars to A's.
Rev. B of paragraph 36, many working dies.

is very probable that other dies, and revs. exist. This preservation of the IV dies effectively destroys Newman's claim that this one working die was in use.

Hub V: Reverse only. Obv. Same hub, only one working die--right or left? The hub was injured before this working die was used. From it: lines on S of UNITED; signs of wear, tons of wax accumulation; small H found incuse mark r. of final A; small nick on border above final S. The working die shows three rust pits left of ribbon, one below, a fifth developing gradually atop S of UNITED, scattered with many very faint rust pits in field. Die lapped; impressions in this group V are all prooflike, though this is not the case on coins of groups VII through IX or on impressions of this obv. on ingots. Rev. A1, as described below.

V-1 *102	170	Yablun 5/9/58, Murrell, Clifford
V-2 *5	170	Paul Garland, Tommy Ryan, ex King Kolman 8/15/58. The piece at issue.
V-3 *102	170	Ford
V-4 *101	170	Ford
V-5 *102	170	Wm. Amelingmeier
V-6 *113	170	W.Coast institutional call. on N.H. Clifford, 3/3/58
V-7 *	7 170	Gloss, ex MN 2/3/59. Rev. slightly double struck??
V-8 *	16 170	Kagin, ex Landau, J.P.Bell, Murrell. Ditto? Photograph not yet available; call on P. side not available.

All preceding are from one reverse die. Hub A, without raised only on ID or any bumps or circumferential breaks; no minute spur from base of final H. Radial cracks at 5:30, 6:30 and 2:00 from engine turning to border, these cracks apparently from the hub, thin and hairline, sometimes very hard to see. ~~xxxxxx~~ Distinguishing marks of working die A1: A1 barely free, right arm of Y broken, ~~xxxx~~ die much lapped, buffed--prooflike. A second working die, A2, has A1 properly touching, and will be further described later on.

Seven of the eight coins of group V, namely V-1, 4 and 5, were given x-ray fluorescent analysis at the Boston Museum of Fine Arts, to check on the handkerchief story. (Franklin claimed that at the time of purchase from the Humbert employee's descendant, the seven prooflike examples of group V were individually wrapped in ancient linen handkerchiefs, on each of which had been written alloy composition and weight, in each case differing slightly; but the man had refused to part with the handkerchiefs at the time.) The results were as follows:

	gold	silver	copper	weight
BSACG--101	910	80	0	514.6
BSACG--104	890	90	5 to 10	52 516.6
BSACG--124	860	85	30	52 516.0

Note that the weights vary inversely with the amount of gold; the lightest one has gold above federal standard, the heaviest is a little low (as would have been expected in fancy experimental productions); note also the exact round-numbered ~~xxxxxxxxxx~~ proportions. And all three of the same alloy, or varied only randomly in say from 800 to 850 gold, or--worst of all--had they proved to be of standard fine gold with less than 50 parts silver, that would have been suspicious. These results tend to confirm the view that the Group V coins were experiments of some kind. The gold has the look of

1000-10 only. No double struck. Obv. III in latest die state. No. 1000 only out of die in field midway between base and r. and as usual; same rust pits mentioned earlier. Rev. D. as mentioned. No. 1000 as group V, more than VIII.

1000-10 1000 170 Amelingmeier ex Franklin

1000-10 1000 170 Hord. Silver. Identical.

1000-10. 1000-10 only. Obv. Hub III, many different working dies; all dies on 1 of UNITED always present or represented by repeats in the same collection (sometimes crude, sometimes more successfully, sometimes very plain. Rev. Hub D/ 25 chip, lamps of VI, circumferential break at r. of VII, i.e. D, circumferential break at left (bottom) of I to O to S and faintly to A and E. Break at 3:30 in Bantles also present. Same dent at F below. Shows but is sometimes weak or repaired (minor lapping) on various working dies. No chips at R of UNITED.

1000-10 1007 162 Smithsonian Institution, negatives 102a-3. Obv. Dent on I plain. R. Frame dent below F plain. X-ray Y thin especially on r. arm. Scar down from second A in ASSAY. Break cracks in this working die: go down from base of O in GOLD; go down from C in OFFICE. Call this obv. IIIc, rev. B1.

1000-10 1008 162 Private collection. Obv. IIIc. Dent at I repaired. Rev. B2. Frame dent plain. Y normal. V clear lines at bases of UN, top of CA.

1000-10 1009 162 Obv. P. ably IIIg. Rev. B3. W. Dent shows. Break at 3:30 shorter than on other dies (lapped etc). Lump between second S in ASSAY and D below. Extra cracks from C in FRANCISCO to D to NY approach from 5 down to r. to frame. Although the cracks of B1.

1000-10 1010 162 Obv. III10: R. dent at I off-center by graver. R has thin weak upper left serif. The other dies. Cracks join D of value to rocky base. Rev. B4. Rusty die. 3:30 crack short. Frame dent shows. Right arm of Y thinner than usual; minor doubling at top.

1000-10 1011 162 Kagin. Obv. III11? Dent at I. Photo not good enough to tell if identical to III9 in field. Die state. Rev. B5. Frame dent off-faced; die shows other signs of heavy lapping. NY farther apart than usual. Y thinner than usual. R. defects around C in OFFICE. Heavy doubling left of O in OFFICE, O in CAL.

begin. O. Probably III9. Rev. 15. Round dent small, partly repaired. Right arm of Y broken away. Line below U. Usual. Various chip-like indentations which may be rust pits: line between A in SIA and II, between M and IP, 13rd Second S. Below 5, etc. Crack joins not elsewhere seen;

Under no circumstances could the six revs. of hub D represent one and the same working die. The cracks are mutually exclusive. We have as far described in Group One (328's of regular design) not less than 12 revs. and 19 revs., and are under no illusion that a complete enumeration has been made.

40. Before proceeding further with the three remaining controversial pieces of Class One and the other * pieces of Classes Two through Seven, it is necessary to complete the enumeration of dies, tablets, punchions and logotypes, as all pieces to follow are recombinations of those. Remember that obverses are numbered, reverses assigned letters in upper case or capitals, tablets etc. are assigned lower case letters.

Obv. 1. Same as III7 above, rusted as in group IX.

Obv. 2. Altered transfer die of 550 denomination. H. III; with dent on I of UNITED, without rust pit on E. Without UNITED; with 50 (the O double punched and with a small horizontal mark at left top) below eagle. Feathers strong below shield; scroll mostly missing above 900, and incomplete above (100 or) 900. Rust at 900 THOUS. Rust traces near ribbon. Could it not have been made by hubbing from III7 because of divergent features just named.

Obv. 3. Similar. Denomination 50 D, perfect, without stamping on 900 or mark at top left. Scroll complete above LINE and 900; slight rust at 900 THOUS., feathers weaker below shield.

Obv. 4. As last two but without any denomination at all. Scroll complete but thin and shallow above LINE, feathers strong below shield; scroll shallow but complete above 900, marked rust at 900 THOUS.; stippling on ribbon end at r. unlike any preceding.

(Note. Obvs. 2, 3, 4 were made by the following process. 1. Hub was used to make another working die, which was placed into the press opposite another die blank to make a copy hub. This copy hub, naturally bearing UNITED D., was softened by annealing and the word UNITED scrolled and burred off, after which which it was reheated and these new working dies sunk from it. One of these, receiving no denomination at all; the other two received 50 D. Before being used to sink those working dies, the copy hub suffered a dent in border above H, which does not show on III7 naturally.)

denomination, fineness, weight and serial number if any.

No. 3. Obveng. ¹ARGENT & Co. / BANKERS / one / and / grs /
 THOUS in upper and lower case letters as indicated, within frame.
 The capitals are from the same font as MORTAL & CO of reverse W and
 large letters of obv. 3; the lower case as on obv. 3. Spaces left
 at the four lowercase words obviously for incusation.

The following items are logotypes or tablet punchcons. Type
 illustrated through 4 are cut down from xGroup VI 320 reverse dies,
 all showing a lump between first S in ASSAY and L below; cut down by
 hand, retaining its shape and slightly in size.

a. ¹THOUS STARS ASSAY / OFFICE OF GOLD / HANSEN FRANCISCO /
 CALIFORNIA. 1893. with normal letters, lump between S and L as mentioned
 on an older recutting on 5. Probably several different tablets not
 easily distinguishable are included under this letter; compare to
 only. They may be distinguishable by size or shape.

b. Similar. Horizontal crack from left border pointing to base
 of U in OFFICE. Comes unruined and with varying degrees of rustiness.
 Cannot be distinguished from a unless either left border is visible
 or rustiness is present.

c. Similar. A's notably heavier than usual, distinction between
 leg and serif obscured; hub worn, impression very heavy.

d. Similar to a, but die defect up to r. from period after A.

e. Similar to a, but retains frame, the dent showing below F.

g. Very small tablet with No.

h. Very small tablet with 999

i. Small tablet with THOUS = the S double punched.

j. Narrow tablet with GRS. and space for incuse numbers.

k. GR on very small tablet.

m. Tablet punchcon with HANSEN SHULTZ & CO / ASSAYER

n. Tablet punchcon with H. HUMBERT / U.S. ASSAYER : the U above
 H-H, SS closely spaced.

o. Similar tablet punchcon, U a little below H, DEBT higher,
 G.S. low, SS not unusually close.

In the foregoing group, i, j, k, m and n are punch-linked with
 rev. W and obv. 5, 6 and 7, the identical alphabet being used. The
 tablet o is punch-linked with these in turn, using the same alphabet
 in which H, R, S, U and Y (having chipped) are replaced by part of
 what would have been a fourth alphabet, the others remaining identical.
 The words seem to have pu preceded all these, as it contains only the
 earlier or older punches plus a badly defective N which must have been
 immediately replaced.

CLASS 170. SMALL GOLD LEGOTS. ALL *

- 170 1-1 Hexagonal 220. Double struck. Wt 42 3/4 gr.
 170 1-2 Double struck on broad 350 side plan. 220.
 170 1-3 Overstruck on 1952 cent, reverse die UNCOINED, reverse in early state without the chip of group IX, the cent now with ancient red patina. This overstrike is the key to the whole situation, and provides an essential element in the proof of genuineness of the whole group of * items.

CLASS 170. EXPERIMENTAL PIECES. ALL *.

- 170 2-A. 900/44.77. Not available for study, dies identified from photographs.
 170 2-A1. 900/44.77. 350 size, plus. Ditto.
 170 2-A1. Piefort of 320 size.
 170 2-A2. Ditto.
 170 2-A1 900/44.77 // 2. The only imp. known of obv. 3
 170 2-A1 900/20.00 // 3/516 The 3 for experimental alloy?
 170 2-A1 900/20 // 3/516 Ditto
 170 2-D1 999/32.25 // 2/742 Ditto? Both sides double struck. Wt 746.65 gr.
 170 2-A3? 900/21.06 // Inverted 340
 170 2-C- 999/28.52 // Spirals

CLASS 170. TRIAL PIECES.

- 170 coin called IX-3 or USA-100 of class one, silver, belongs here.
 170 2-BX 1-1 (edges always plain save for said IX-3)
 170 *25 1-D3(?) 900 removed from scroll. Lead.
 170 *25 3-Y early state lead
 170 *25 3- late obv. state, lapped, ribbon end weak above IBL, fewer feathers above shield. lead
 170 *21? 2-D1 000/0000 // lead
 170 *22? 7-D1 000/000 //2 the 2 inverted lead
 170 *23? 7-D1 000/0000//2 lead

The first three BX numbers are because I had to return the photographs too soon to verify the varieties; the coins were checked in the metal, but no photographs were there from the new set. Possible transposition of numbers will not affect the argument.

Julius 27th. July 28th. Aug *

6. #10 11/949 // wt. 536.20 gr. Leo A. Young. Decided a forgery by HJ on the stupid grounds that this p b punchon must have been cut down from a third copy die from a group A reverse; this needs no further refutation now in view of preceding arguments. x
7. #11 999 // wt. 18.921 grams or 291.70 grains
8. #12 999 // the 999 sideways
9. #13 999 // wt. 503 gr., lowest line of b off the piece
10. #14 999 // 2-17-53 rev. numerals undoubtedly a date.
11. #15 999 // 999 represented only by a rubbing, the piece 999 of Franklin in possession of the bank president in the town where the * coins were first found.

CLASS REVIEW. VALIDATIONS

USAG 195 or 20 .50. dies 8ms-2b 36.00 / 2/1/10/365 d.e. 36.00
 A 20 195/20 Above the 6 obv., denomination included in proper place. 2 oz 1 dwt 10 grs 888 fine. Mutilated by a counterstamp from the b tablet. Explained below. "

The above, some 65 pieces, involve a language mix group including 8 obvs., 9 revs. and 13 tablets or logotypes or punchons of various sizes which required uparts of four different alphabets to make do here in addition to access to original hubs.

43. It is now necessary to consider the significance of this extraordinary group of p unpublished pieces. To do so we have to understand, if possible, the purpose behind such pieces, specifically why they are organized into the seven classes above mentioned. The classification here attempted is partly from analogy with other similar issues by other pioneer coining firms, partly from (for the sake of argument) mix accepting the group as possibly genuine; it will be seen that the wealth of interconnections is far in excess of anything that a forger might have been able to invent.

44. Humbert/USAG operations are historically known to have involved the manufacture of (A) coins, officially styled "ingots", originally confined to octagonal fifties (and in 1851, also, octagonal hundreds) and in a few instances oblong hundreds and 200, 3500 and 4100 denominations. The design on the latter is not recorded. (B) Alloy bars were made from clients' bullion, 30-times in even denominations but this was exceptional. Usually they were in odd

weighed only, according to the bullion value (less standard assay charges) of the deposits. These are analogous to the assay bars issued at Philadelphia, which may have circulated at a juncture when more convenient circulating media were difficult to come by or unobtainable. They are also analogous to assay bars issued by James Wm. & William, Assayers & Co., Shultz & Co. (unlocated), Miller & Co. (from 1813 to 1824, most commonly with 816 and then later 817 circulation), Shultz & Apfell, and various other firms. Assay bars normally were distinguished from ingots intended to circulate by having serial numbers. Weights are normally incused along with fineness, and if dies or punches were used (by any assayer) these was assay bars deliberately for incusing weight and fineness. (4) Proofing pieces. These were small lumps or bars of gold refined to as near 999 1/2 as possible; they were used as comparison standard of pure gold in assaying operations. The assayer or his assistant would take a small clipping or shaving/ (of recorded weight) from a proofing piece and subject it to the same chemical operations (separately) as were being performed on the ore sample brought in for assay, and the comparative results would give a reliable basis for estimating fineness of the latter. Alternatively, if a sample of gold of known lower fineness such as 980 is needed for chemical comparison with an ore sample, a piece of 999 1/2 would be scraped or shaved to provide like gold of known weight, adjusted proportionately with silver to yield gold of the desired fineness, melted, and the appropriate comparisons made. In such a proofing operation, if a melt had to be brought up to a desired fineness such as 884 or 990, a known weight of proofing pieces would be added for the purpose. Proofing pieces normally have an overall diameter of approximately 25mm, and a thickness of 2mm or higher. Quite a number of these have turned up, in different sizes, again ordinarily showing

These would be tetragonal, reflecting processes or suggestions for
change or reform. (3) Experimental pieces representing a variety
of suggestions; the historical background for these will be found in
the next section. (4) Trial pieces--in metals other than gold. (5)
Alloy bars, explained above. (6) Proofing pieces, explained above.
(7) Yellowstone, explained above.

Mr. A. asks whether let us consider the possibility that any
one piece, specifically V-2 (the one under controversy), was a
copy made from copy dies. This assumption, made without
questioning and sustained continuously by Newman, has implications
as to the purpose of the spy * operation, and has still further
implications as to the materials available to ***--i.e. to Franklin.
As he is the target for Newman's questioning at the original 1966
hearing. If the A1 reverse is a copy die, then either the other
dies are all copy dies and original forgeries, the latter * playing
on three such as obs. 5, 6, 7, 8, revs. W, X, Y, Z and all the
tablets save a strange one--or else the * source discovered a group
of old dies and punches, combining them in various ways with some
copy dies. Still another alternative is that all these pieces were
made by the * source from genuine old dies. All these possibilities
must be considered without reference to prejudice in favor either
of proofing.

Mr. A. If the V-2 copy is from copy dies, then the method of
copying and the prototypes must be ascertained. Eric's argument
involves the assumption that either casting or rubbing was done
(as one place he says one, in another the other) to produce the
copy dies: Some obsesses and at least four, possibly five copy
obsesses, together with at least five four-line tablets. I shall
consider his argument and then reconsider its implications in detail.

Mr. Eric believes that the following steps were taken: (a) A

... later on plastic acid or negative was made from neither side of the original Group I W2000 #20 showing the frame dent and the dent on the left side. By impressing the coin onto thick disks of the ceramic substance. (b) These molds were repeatedly dipped into a ceramic slurry, the whole thing being subsequently baked to harden the thick ceramic layer and to melt, burn off or vaporize the mould wax. The traditional core-perdue or lost-wax method. This leaves a ceramic hub or positive, in relief like the original coin, and surprisingly (1) hard enough to accommodate following operations without damage, (2) fine enough in detail to produce copy dies without loss of sharpness even in places like the engine turning on rev. and the 900 GROSS on obv. Miraculously, there is no shrinkage and no size discrepancy in the copy dies made from this positive, despite the requirement of a separating medium. Here we immediately reach improbability, though Newman maintained in his questioning of Franklin that he had access to extremely sophisticated equipment. (If so, why did he have a New York City jeweler make the electrotype copies of the overstruck peso and the CSA half dollar? These are not remotely deceptive.) (c) The ceramic hub was used as a template for casting centrifugally a working die of molten steel or some other molten metal, which cools and is afterwards hardened. Miraculously, there is no granularity, no porosity and no shrinkage; and the ceramic hub suffers no deterioration. Though hard enough for that purpose, it is still easily enough worked to make possible the removal of the word TWENTY for creation of three working obverses; and for successive alterations for partial removal of the circumferential breaks. ~~throughout the entire process~~ (d) The obverse and the reverse (group VII, die D1) so made are used for striking Group VII examples, not prooflike, but on traditional cold-rolled blanks, using a 170-reed collar. (e) Afterwards, the same ceramic

however, apparently still in perfect condition, was retooled with a
 100-1000 graver or similar's drill to remove the ~~the~~ ~~the~~
 100 graver of the differential break except for the small
 100 between 3 and 4; in this state it was used to make at least
 100 and last copy die, which ~~the~~ cut down at frame line to make
 the tablets used for study sets and proofing pieces. (c) At 100,

again, the die was still in perfect condition, having suffered
 no cracking, breaking, chipping nor other deterioration; it was
 retooled again to remove the lump between 3 and 4 and
 the other only between 10, after which it was used to make one or
 more additional copy dies (group V). These were brilliantly polished,
 at least one supposedly on cast blanks,
 and the group V coins struck. The nick on W of group VII and the
 other nick on W of group VII were both suffered in the process of
 polishing or burn-finishing these working dies. The cast blanks of
 group V were made in different alloys containing from zero to 10
 parts copper per thousand, in addition to the variable amount of
 silver. (g) The working dies and tablet punches are used more
 or less randomly to create weird pieces purporting to be assay bars,
 proofing pieces and experimental ingots of various kinds. (h) From
 some source unknown a group of 19th century alphabets is obtained and
 used for creating dies and tablet punches of original design,
 used in turn with need for making additional Indian stamps or
 for repeated assay bars, proofing pieces, etc. (m) ~~the~~ ~~the~~
 100, copy die of group VII was used for raising a ~~the~~
 at a ~~the~~, from which the other copy dies were made. (i) Since

the 100 ~~the~~ 100 ~~the~~ tablets, the W reverse and the ~~the~~
 100 ~~the~~ puncher are all punch-linked with each other and with
 punches 3, 6 and 7, all must have come from the same source, there-
 fore the large letters on revs. W and m² and obv. 3 must also have
 come from the same source, therefore the ARGENTIA & Co, ingot and
 the ~~the~~ sent (from the unruled die state of the reverse die

and in Ford's possession) are also falsely made by the maker of the counterfeit.

49. At which point an unbiased observer will reflect and think my wondering line "O_h, come off it!" In the first place, this account of Eric's reasoning--specious enough and impressive enough to convince the unvary--requires that the group V coins have been all made after the group VII's, which is contrary to the evidence of increasing die rust on the obverse die they share. In the second place, the very existence of the reverse die W makes it improbable to the point of absurdity that this could have been all accomplished within the space of roughly one year--even assuming that the several pounds of California gold could have been obtained, in varying alloys, together with the very considerable amount of equipment including the four alphabets.

50. The overstruck cent mules the obverse of the controversial twenties, in something less than the most rusted state known, with the unrusted state of reverse W. This cent shows a thick patina of obvious age. Under 75 diameters it does not look new or artificial; it does not yield ~~the~~ to ordinary tests, though I have not wished to subject it to boiling for an hour in soda. As a known expert on large cents I can testify that it is old patina and not new recoloring. This cent was a gift from Franklin to Ford on July 27, 1959.

51. Reverse W was bought by Ford at the 1950 ANA convention from Franklin, the overstruck cent not then being known. At the time it was rusted all over and corroded so badly as to be unreadable. Ford kept it at his house table and soaked it there for three days in Goppo's Gun Solvent cleaning solution, after which time I was able to read it. To the present day it is still severely rusted on all surfaces, enough so to preclude making any impressions from it; the rust looks old, and when the die was brought in there was no partic-

They would have been valuable confirmation of the die and vice versa.

30. We now come to the Argenti & Co. ingot, which is the most valuable single piece of evidence. Whoever made this ingot owned or had access to the same alphabets used to make obvs. 5 through 9, obv. 10, and the aforesaid tablets, and the genuineness of those stands or falls with the genuineness of the ingot. I shall show that the punches were made by Albert Küner, a fact which has extremely important implications in the question of genuineness of the whole group of dies.

31. Before going into this line of argument, let us consider the alphabets. Three alphabets are represented on this group of dies and tablets together with part of a fourth. (1) The lower-case letters are found only on the Argenti ingot. (2) The ~~large~~ caps are found on obv. 6, rev. Z, and rev. W. (3) The small caps occur first on the rev. W, showing a badly defective N; then, without other change than replacement of the N, on the mentioned tablets except the one denominated s. (4) On tablet s the Z, R, S, U and Y, all having shown varying amounts of chipping on the others, have been replaced by others in somewhat different detail but similar style--all obviously mid 19th century. Note the logical sequence. The Argenti ingot bears a SHUTE & CO ASSAYER logo at top, from earlier date of the small caps; the (1855) H. HUMBERT U.S. ASSAYER tablet s, overstruck (opposite a four-line tablet cut down from a 20-line twenty die) on the ARGENTI & CO ingot, shows the partly replaced alphabet. This is all exactly as it would have been expected to be in genuine pieces. Were the alphabets modern copies, the replacement letters would most likely not have been necessary for the brief operation represented by making less than a dozen dies, and were they simultaneously available, only the most extreme care would have prevented mixing up of the two alphabets or parts of

58. Found in an American gold, part III, pp. 75-8 (1912),
 Shultz & Co. (Judge G. H. Shultz & Thomas W. Thompson
 owners), under Garrett's interview from Builders of a Great
 Town, California of Commerce Publishing Co., S.F., 1941, vol. 2, 1,
 is the notion that Albert Koper engraved dies for many private
 jewelry, making a Garrett doing the work on these dies.
 and that in particular Shultz & Co began a "business" for Bergo-
 and the Argenti & Co. It is only to be expected, then, that some
 identification of Shultz & Co would be found on any ingot of either
 of these types. It is no surprise, then, that the Shultz logo-
 type is found on the Argenti & Co ingot now surviving. This stamp
 is of considerable importance. But if the ingot itself was
 a forgery (something never claimed or suspected by anyone, but
 which would be and only if the alphabets are modern creations or
 rather sets of the punches), then the forger would have had only
 a secondary purpose in creating it. Extreme skill and access to
 valuable old equipment including parts of four mid 19th century
 equipment were necessary to create the Argenti ingot, which in-
 fantinally weighs out correctly and which is in obvious California
 gold. It would have been very much to the forger's advantage to
 leave the thing alone and to make at least one or two more from the
 dies. Nevertheless, not only is there only the one ingot. It is
 moreover to the an extent (by the validating counterstamps) as
 and its special value by more than half. Harvey Stick once told me
 that counterstamps were worth hundreds a couple of thousand dollars.

59. And as it that were a not enough, why did not the forger
 appear in 1958 with one or more highly salable Shultz & Co ingots?
 These would have been readily created using only the available
 punches and the extant logotype m, value, weight, fineness and date.

probably derived from the same punches used on the various assay marks already shown. The Saulitz & Co ingots, or even one, might have paid for the entire operation.

57. We now have to consider if the maker of the Argenti & Co ingot could have been simultaneously so clever and so stupid as to kill the value of his own production. Numismatically the use of the counterstamps would have required stupidity as it would have served only to kill the value of the ingot, placed where the stamps were placed. Any coin collector would have placed the counterstamps alongside that they would not interfere with the ARGENTI firm name. On the other hand, in 1853 Argenti ingots were commonplace, the counterstamps nonexistent, and a validation would be suitable no matter where the stamps were put. Humbert or his assistant would have treated the operation as something entirely routine.

58. In the absence of contrary evidence I am bound to treat the Argenti ingot as genuine, on much the same grounds as I am bound to treat the cent overstruck as authentic. Mutilation of the Argenti ingot, whether forged or genuine, would be not only unintelligible, it would have been incredibly prodigious effort purposelessly ruined to nobody's advantage and especially to the disadvantage of the forger himself--as the ingot sold for maybe one fifth of what it would have brought without the extra Hubbert stamps placed where they were.

59. If the Argenti ingot is genuine, then it can be immediately concluded that the letter punches used on it were owned by Albert Küner, as Küner made the dies. Thereby it is immediately enabled ascription of reverse W to Küner because the large capitals recur there. If Küner made reverse W, then the small caps were part of his stock of letter punches, gradually chipping away and being replaced by others--first the N, then the

44. If obvs. 5, 6, 7, or three letters slipped too much for further use.

45. This would mean we had correctly ascribed the tablets & though we know it is possible that either the owner of the Mallory collection made obs. 5, 6, and 7 or that Küner himself made them taken also together with reverse V.

46. But Küner's collection was destroyed by fire prior to 1911; whatever he himself's aspect of his biography is the lack of his own or pioneer gold. It follows, then, that the results must have been destroyed at that time; more specifically, even if the punches were preserved as late as that, only the replaced slipper in its last recent state (with the new D, R, S, U and Y) would have survived; the earlier versions would not have been available to a person before. The only alternative, then, is that the punches, besides the obverse 5, 6, 7 and 8 are actually Küner's work, therefore that they are all genuine penny. The style of lettering in small caps is as good as none as in the Sankar, Dabur, Hoffat & also.

47. This in turn establishes the genuineness of obs. 5, 6 and 7 and also confirms the genuineness of rev. W. If these dies were genuine and not made they have survived untraced until in 1958? And particularly that reverse W was so severely rusted as to be unrecognizable until after it had been soaked for three days in solvent and that even this treatment has not removed enough rust from it to enable a readable wax or plaster impression to be made.

48. If obs. 5, 6 and 7 are genuine, then the and used being one kind because untraced, this immediately validates as genuine the entire group of makings die-linked with them or with dies with which they were muled. We cannot now release any of them from this group as they are in the catalogue obs. 1.

49. If rev. W is genuine, then the and the cent overstrike was made while it was untraced, i.e. in the mid nineteenth century, that and subsequently validates obverse 1 (III-7, the controversial eagle) and rev. 1 and the dies muled with it. This die is found in more

...on original gold pieces (groups VII, VIII and IX). Microscopic examination of the overstrike leaves no doubt of the date. It must follow, then, that the overstrike was an 1852 or earlier 1851 product (the rev. W is dated 1852), and the gold pieces were made later.

55. We have further established that whoever made the * coins had access to rolling mills and blanking presses ~~uncommon~~--and striking presses--comparable to those of the original USMCO; that he had access to a considerable amount of California gold; that he had access to a group of Künner alphabets and dies; and that he had sufficient knowledge ~~in~~ of both minting technology and history (if he was ~~then~~ working in recent years), or at least of minting technology (if he was working in the 19th century), to produce items which are convincing enough to refute the most sophisticated arguments yet brought to bear on them.

56. If this man worked in modern years, he must have had access to a cache of Künner punches which somehow managed to escape the fire when nothing else of Künner's did, ~~and~~ fifty years or more before; and he must have known logically how to replace punches more chipped with punches less chipped; and he must have exercised ingenuity of an extreme order in making puncheons and tablets, enough so to involve technological processes far in advance of anything ~~xxxx~~ Newman could come up with as a method for creating ~~forgeries~~, processes which must have been therefore substantially identical to those used in 1851-52. (Casting steel dies from ceramic hubs won't work. The letter from Edva Adams alluding to this method and saying that the results are unsatisfactory has been seen by me.) Yet this same man ~~may~~ have been stupid enough to ruin his own handiwork. It won't ~~mean~~, gentlemen.

57. There is a principle in philosophy known as Occam's razor.

48. ... whatever. In one instance there is minor misfit
... double striking on the * coin, but in my given
... there is no size discrepancy at all. None. no
... can be made to fit its partner, & were him to update him.
If the * dies were hubbed or transferred copies of copies, they would
have lost some detail; if they were made by something like the process
... porosity and some
... they would certainly have shown some/wshrinkage--
especially if casting were done at any stage. Cast steel shrinks
appreciably and unevenly, according to the Director of the NIA and
common metallurgical knowledge. T_hs disposes of N_{uman}'s argument
altogether. If the dies were hubbed copies of copies made from a
regular USAOG twenty, why did they not lose detail? and why is there
... loss of detail even microscopically? The detail is
even microscopically the same in all areas of engine turning, as I
have verified; and this engine turning was a deliberate anticounter-
feiting device. I have seen a lead cast of a USAOG twenty, copied
from a decagonal lead trialpiece which was in the 1956 ANA Convention
auction; this cast shows bubble marks and shrinkage. I have seen
1940 copper cents struck from hubbed dies; they always show some
loss of detail and minor size discrepancy. Neither condition obtains
in the * coins. The technology available for this purpose is far
in advance of anything known to N_{uman}, if indeed it exists at all.

49. The only alternative, gentlemen, is to exonerate the whole
group as genuine. If the others are genuine, then V-2, the twenty
... (Carland's) is also genuine. We now reach the question of
whether it is a proof. Comparison of it with the presumably P_hs-
... proof (EPN #12, USAOG 123) is useless. Instead, it
should be compared with the proofs known to have been made by
Humbert: the 1852/1 S₂O ex Humbert, Zabriskie and the ten in JHU.
Surfaces on these are more like each other and like the group V
coins than like the EPN 12, tending to corroborate the original mint

... or for assay bars according to what denomination could be
... then, with no more work than had formerly been used for
... Millions of \$50 slugs were made in 1852, and some
... in 1853; most of these from the regular 1852 dies,
... mostly from the modified twenty obverses. The principal
output from then on was twenties from the hubs shipped from the
... until the government brought out the USAOG Dec. 14, 1853
... ^{zinc} conversion into an official mint--the new/assaying process which
... been surreptitiously put into use.

72. During the troubled period late in 1852 and early in 1853
the fifties were refused at customhouse and various experiments
intended to lead to an acceptable fine coinage were going on;
the * Material appears to reflect those experiments, completed prior
to arrival of 1853 twenty hubs at the beginning of the year or just
at the end of 1852; this arrival was presumably not delayed owing
to congressional opposition to ingots. The round and oblong ingots
with obv. 5, 6, 7 appear to belong to this period; the tablet 3,
with the replaced letters, to a slightly later one; the logotypes
were in use concurrently for various purposes suitable to an
assayer. Shipment of hubs from Philadelphia would have been the
method of choice rather than shipment of working dies inasmuch as
the cost, and risk of seizure by private parties, would have been
far greater with the latter, and the when USAOG certainly had the
equipment for hubbing dies from these hubs if they had presses
powerful enough to mix strike fifties. This situation is not
matched by anything in the mint back east; many dies were completely
hubbed by then, including all nondate sides of all denominations,
and all date sides were completely hubbed save for dates, but matrices
implied an unorthodox method of multiplying hubs for a very special
situation not extant at the Philadelphia though long since in use at the
London mint. In short, the authorities had reason to think that the

